

Lab experiment 1: SAMBA SHARE

AIM:

Installation and configuration of Samba share.

Description:

SAMBA

One of the most common ways to network Ubuntu and Windows computers is to configure Samba as a File Server. This section covers setting up a Samba server to share files with Windows clients.

The server will be configured to share files with any client on the network without prompting for a password. If your environment requires stricter Access Controls see Share Access Control

Port No: 139

Package name: samba

Configuration file: /etc/samba/smb.conf.

Procedure:

1. To install Samba, we can run:

```
$sudo apt update
```

```
$sudo apt install samba
```

2. We can check if the installation was successful by running:

```
$whereis samba
```

3. Now that Samba is installed, we need to create a directory for it to share:

```
$mkdir /home/&lt;username&gt;/sambashare/
```

The command above creates a new folder samba share in our home directory which we will share later. The configuration file for Samba is located at /etc/samba/smb.conf. To add the new directory as a share, we edit the file by running:

```
$sudo nano /etc/samba/smb.conf
```

At the bottom of the file, add the following lines:

```
[sambashare]
```

```
comment = Samba on Ubuntu
```

```
path = /home/username/sambashare
```

```
read only = no
```

browsable = yes

4. Then press Ctrl-O to save and Ctrl-X to exit from the nano text editor.

5. Now that we have our new share configured, save it and restart Samba for it to take effect:

```
$sudo service smbd restart
```

6. Update the firewall rules to allow Samba traffic:

```
$sudo ufw allow samba
```

SETTING UP USER ACCOUNTS AND CONNECTING TO SHARE

7. Since Samba doesn't use the system account password, we need to set up a Samba password for our user account:

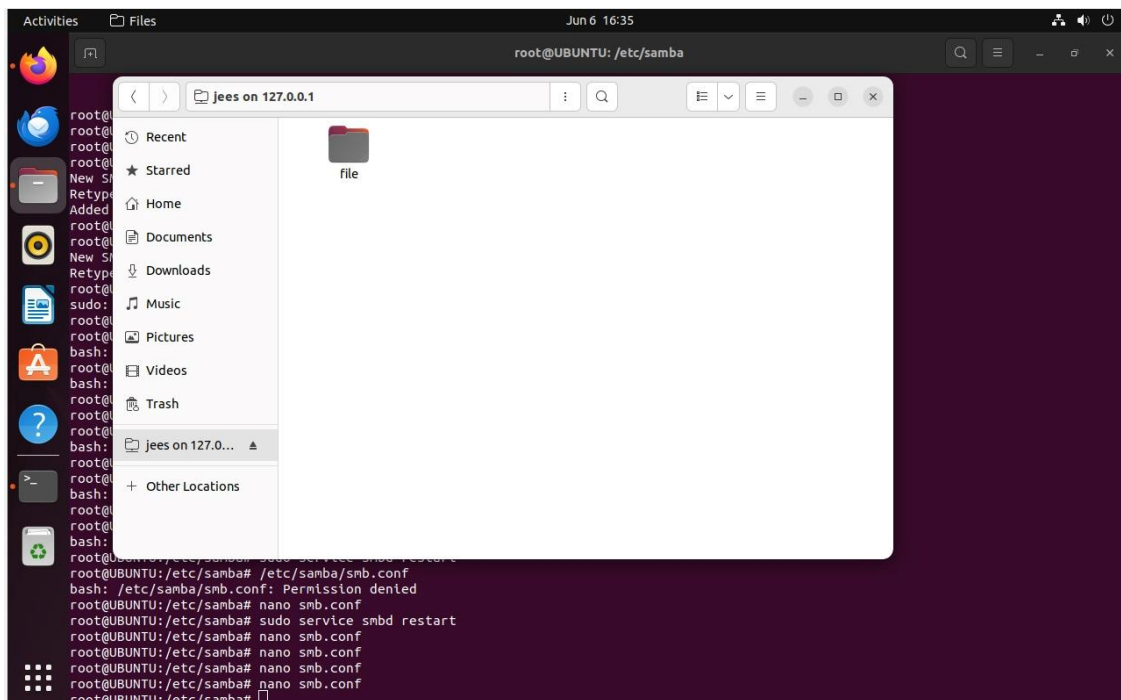
```
$sudo smbpasswd -a username
```

CONNECTING TO SHARE

8. On Ubuntu: Open up the default file manager and click Connect to Server then enter: Connecting to samba via smb://127.0.0.1/sambashare

Note: ip-address is the Samba server IP address and sambashare is the name of the share. You'll be prompted for your credentials. Enter them to connect!

RESULT:



Activities Terminal Jun 6 16:36

root@UBUNTU: /etc/samba

```
GNU nano 6.2 snb.conf
; browseable = no
; create mask = 0600
; directory mask = 0700

[printers]
comment = All Printers
browseable = no
path = /var/spool/samba
printable = yes
guest ok = no
read only = yes
create mask = 0700

# Windows clients look for this share name as a source of downloadable
# printer drivers
[print$]
comment = Printer Drivers
path = /var/lib/samba/printers
browseable = yes
read only = yes
guest ok = no
# Uncomment to allow remote administration of Windows print drivers.
# You may need to replace 'lpadmin' with the name of the group your
# admin users are members of.
# Please note that you also need to set appropriate Unix permissions
# to the drivers directory for these users to have write rights in it
; write list = root, @lpadmin

[Jees]
path=/home/ubuntu22/Desktop/jees
browseable = yes
read only = yes
guest ok = no

Help Write Out Where Is Cut Execute Location M-U Undo M-A Set Mark
Exit Read File Replace Paste Justify Go To Line M-E Redo M-G Copy
```

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root@UBUNTU: /etc/samba

```
GNU nano 6.2 snb.conf
; browseable = no
; create mask = 0600
; directory mask = 0700

[printers]
comment = All Printers
browseable = no
path = /var/spool/samba
printable = yes
guest ok = no
read only = yes
create mask = 0700

# Windows clients look for this share name as a source of downloadable
# printer drivers
[print$]
comment = Printer Drivers
path = /var/lib/samba/printers
browseable = yes
read only = yes
guest ok = no
# Uncomment to allow remote administration of Windows print drivers.
# You may need to replace 'lpadmin' with the name of the group your
# admin users are members of.
# Please note that you also need to set appropriate Unix permissions
# to the drivers directory for these users to have write rights in it
; write list = root, @lpadmin

[Jees]
path=/home/ubuntu22/Desktop/jees
browseable = yes
read only = yes
guest ok = no
```

```
Activities Terminal Jun 6 16:41
root@UBUNTU: /etc/samba

ubuntu22@UBUNTU:~$ su
Password:
root@UBUNTU:/home/ubuntu22# sudo apt update
Reading package lists... Done
E: Could not get lock /var/lib/apt/lists/lock. It is held by process 1086 (packagekitd)
N: Be aware that removing the lock file is not a solution and may break your system.
E: Unable to lock directory /var/lib/apt/lists/
root@UBUNTU:/home/ubuntu22# sudo apt install samba
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libreoffice-ogltrans libwpe-1.0-1 libwpebackend-fdo-1.0-1
  linux-image-6.2.0-26-generic linux-modules-6.2.0-26-generic
  linux-modules-extra-6.2.0-26-generic
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  libsmbclient libwbclient0 python3-samba samba-common samba-common-bin
  samba-dsdb-modules samba-libs samba-vfs-modules
Suggested packages:
  ctdb ldb-tools ntp | chrony smbldap-tools winbind heimdal-clients
The following packages will be upgraded:
  libsmbclient libwbclient0 python3-samba samba-common samba-common-bin
  samba-dsdb-modules samba-libs samba-vfs-modules
9 upgraded, 0 newly installed, 0 to remove and 219 not upgraded.
Need to get 12.3 MB of archives.
After this operation, 0 B of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libsmbclient amd64 2:4.15.13+dfsg-0ubuntu1.6 [65.9 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 samba-dsdb-modules amd64 2:4.15.13+dfsg-0ubuntu1.6 [313 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 python3-samba amd64 2:4.15.13+dfsg-0ubuntu1.6 [3,115 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 samba-vfs-modules amd64 2:4.15.13+dfsg-0ubuntu1.6 [419 kB]
Get:5 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 samba amd64 2:4.15.13+dfsg-0ubuntu1.6 [1,192 kB]
Get:6 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 samba-common-bin amd64 2:4.15.13+dfsg-0ubuntu1.6 [620 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 samba-common all 2:4.15.13+dfsg-0ubuntu1.6 [75.7 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libwbclient0 amd64 2:4.15.13+dfsg-0ubuntu1.6 [266 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 samba-libs amd64 2:4.15.13+dfsg-0ubuntu1.6 [6,276 kB]
Fetched 12.3 MB in 5s (2,719 kB/s)
Preconfiguring packages ...
(Reading database ... 241469 files and directories currently installed.)
```

```
Activities Terminal Jun 6 16:43
root@UBUNTU: /etc/samba

Display all 234 possibilities? (y or n)
root@UBUNTU:/etc# cd /etc/samba
root@UBUNTU:/etc/samba# ls
gdbcommands smb.conf tls
root@UBUNTU:/etc/samba# nano smb.conf
root@UBUNTU:/etc/samba# sudo systemctl smbd restart
sudo: systemctl: command not found
root@UBUNTU:/etc/samba# sudo systemctl smbd restart
sudo: systemctl: command not found
root@UBUNTU:/etc/samba# sudo service smbd restart
root@UBUNTU:/etc/samba# sudo ufw allow samba
Rules updated
Rules updated (v6)
root@UBUNTU:/etc/samba# ipconfig
Command 'ipconfig' not found, did you mean:
  command 'ifconfig' from deb iproute2 (5.15.0-1ubuntu1)
  command 'ifconfig' from deb net-tools (1.60+git20181103.0eebece-1ubuntu5)
  command 'iwconfig' from deb wireless-tools (30-pre9-13.1ubuntu4)
Try: apt install <deb name>
root@UBUNTU:/etc/samba# apt install net-tools
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
net-tools is already the newest version (1.60+git20181103.0eebece-1ubuntu5).
The following packages were automatically installed and are no longer required:
  libreoffice-ogltrans libwpe-1.0-1 libwpebackend-fdo-1.0-1 linux-image-6.2.0-26-generic linux-modules-6.2.0-26-generic
  linux-modules-extra-6.2.0-26-generic
Use 'apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 219 not upgraded.
root@UBUNTU:/etc/samba# ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::babf:b255:e5ba:c37c prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:0e:3c:4f txqueuelen 1000 (Ethernet)
    RX packets 208579 bytes 309045733 (309.0 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 22185 bytes 1830707 (1.8 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
```